MOLLUSC TYPE SPECIMENS IN THE SOUTH AUSTRALIAN MUSEUM. 4. GASTROPODA: MARGINELLIDAE

D. R. HEWISH & K. L. GOWLETT-HOLMES

HEWISH, D. R. & GOWLETT-HOLMES, K. L. 1991. Mollusc type specimens in the South Australian Museum. 4. Gastropoda: Marginellidae. *Rec. S. Aust. Mus.* 25(1): 57-70

The South Australian Museum collection of marginellid types is one of the most important collections of reference material for the Australian members of the family. The species represented originate mainly from Tasmania and southern and eastern Australia, plus two species from New Zealand, and one species each from Antarctica, Sri Lanka and Madeira. The collection contains primary type material, and some secondary types, of 27 species; a further 28 species are represented by secondary types.

D. R. Hewish, c/- Department of Invertebrates, The Museum of Victoria, Russell Street, Melbourne, Victoria 3000, and K. L. Gowlett-Holmes, South Australian Museum, North Terrace, Adelaide, South Australia 5000. Manuscript received 6 June 1990.

The Marginellidae is a family of mainly marine gastropods that is particularly well represented in Australia, and its members are especially abundant in southern Australian waters. Because of this, the Australian fauna occupies an important place in the taxonomy of the family as a whole. The majority of Australian species have been named during this century, and the primary types of most of these are held in collections of Australian museums.

The earliest marginellid type material in the South Australian Museum collection is from the work of Prof. R. Tate between 1878 and 1901. Tate described species collected by himself and by W. L. May from South Australia and Tasmania (Tate 1878; Tate & May 1900, 1901). As most of Tate's species descriptions were not accompanied by figures, these species are illustrated here, with the exception of those which were illustrated by Tate & May (1901).

A large number of secondary types and some primary types of Marginellidae in the South Australian Museum are from the collection of W. L. May, acquired by Sir Joseph Verco and presented to the museum in 1929. The May Collection contained secondary types of all of the species that May had described from Tasmania, plus the types of some species described by May's contemporaries from within Australia and from overseas.

A later series of marginellid types resulted from the work of Cotton (1944, 1949), who described several new species from southern and western Australia, mostly from material previously collected by May and Verco early this century. Cotton's types have never been adequately illustrated, as the figures accompanying the original descriptions were of poor quality and, in some cases, misleading. Figures of types of all of Cotton's species have therefore been included here. Also in the collection are specimens of several species of *Marginella* described by C. Laseron from New South Wales, which come from the type localities, and were donated to the South Australian Museum by Laseron. These specimens are believed to be from the type series, and are regarded here as syntypes.

Since Laseron (1957) little of consequence has been published on Australian Marginellidae, and the type material of only one species, *Marginella ealesae* Powell, 1958 (holotype), has been added to the collection.

As a result of the above research, the type collection in the South Australian Museum is very representative of the marginellid fauna of southern Australia and contains a very extensive range of secondary types.

All species listed in this paper were originally described under the genus Marginella Lamarck, 1799, but have subsequently been placed in other genera. The generic classification of the Australian Marginellidae has been neglected since Laseron (1957), and is in need of revision. The most recently published revision of genera for this family is by Coan (1965), and this scheme, although outdated, has been followed here, with modifications as indicated in the text. Other modifications are the use of Mesoginella Laseron, 1957 for species placed previously in Sinuginella Laseron, 1957, following Coovert (1988), and the use of Austroginella Laseron, 1957, Alaginella Laseron, 1957 and Protoginella Laseron, 1957 as valid genera, not subgenera of Marginella. This is considered necessary because species of Marginella lack radulae, while those of the above Australian genera have well developed radulae (D.R.H., unpublished results and see Coovert (1989) for review). It should be noted that a considerable amount of further work is necessary before the status of many generic and subgeneric groups can be established, and it is probable that extensive changes will be made in the future. No comprehensive revision of the Australian Marginellidae at the species level has ever been undertaken, and the species level taxonomy obviously requires considerable updating. In the following list, species are listed alphabetically according to their names at the time of description, followed by the original citation, the current generic placement (Coan 1965) and current species allocation as determined by the authors.

The following abbreviations are used in the text. AIM = Auckland Institute and Museum, New Zealand; AM = Australian Museum, Sydney; BANZARE = British, Australian and New Zealand Antarctic Research Expedition, 1929–1931; BMNH = British Museum (Natural History), London; NMV = Museum of Victoria, Melbourne; N.S.W. = New South Wales; N.Z. = New Zealand; NZGS = New Zealand Geological Survey, Lower Hutt; S.A. = South Australia; SAM = South Australian Museum, Adelaide; Tas. = Tasmania; TM = Tasmanian Museum and Art Gallery, Hobart; Vic. = Victoria; W.A. = Western Australia.

Family MARGINELLIDAE

Subfamily Marginellinae

Genus Marginella Lamarck, 1799

Marginella albida Tate, 1878

Trans. Proc. Rep. Phil. Soc. Adel. 1: 87.

= Volvarina (Haloginella) vincentiana (Cotton, 1944) (q.v.) new name for M. albida Tate, 1878. Lectotype: D13519, adult specimen, in shell sand, Marino, near Adelaide, S.A., collected by R. Tate, date of collection unknown. (Lectotype selected here.) (Figs 1A-B).

Paralectotypes: D18633, 7 specimens (2 immature), with same collection data as lectotype.

Note: We have selected the lectotype (D13519) from the lot labelled 'M. albida' Tate, Tate's type & cotypes' from Marino, S.A., the first locality listed in the original description by Tate (1878), and have designated the remainder of this lot (D18633) as paralectotypes. The specimen selected as lectotype was first separated and registered by B. C. Cotton in 1938 as the holotype of this species, as this specimen corresponded most closely to the measurements given by Tate (1878). However, as Tate (1878) did not designate a holotype, we have selected this specimen as the lectotype (1CZN Recommendation 73F). The 'two examples'

mentioned by Tate (1878) most probably refer to the number of specimens from Aldinga, S.A., the last locality listed in the description.

Marginella albomaculata May, 1911

Pap. Proc. R. Soc. Tas. for 1910: 382, pl. 13, fig. 2. = Persicula concamerata (May, 1918) (q.v.) new name for M. albomaculata May, 1911.

Paratype: D15790, adult specimen, in kelp root, Frederick Henry Bay, Tas., collected by W. L. May, date of collection unknown.

Note: Neither this specimen nor the holotype (TM E627/7968) were alive when collected. The shell surface of the paratype is slightly eroded and there is no trace of the pattern of white spots present on the holotype. This species was placed in the genus *Epiginella* by Laseron (1957), which is now considered to be a subgenus of *Crithe* Gould, 1860 (Coan 1965). However, the shell possesses a colour pattern which precludes its inclusion in that genus and suggests that it is more correctly placed in *Persicula*.

Marginella altilabra May, 1911

Pap. Proc. R. Soc. Tas. for 1910: 383, pl. 13, fig. 3. = Mesoginella altilabra (May, 1911).

Paratypes: D15789, 15 adult specimens (1 damaged), dredged dead in 183 m (100 fm), 7 miles east of Cape Pillar, Tas., collected by W. L. May, 18.xii.1907. D16086, 2 adult specimens, with same collection data as D15789.

Note: Holotype in TM (E616/7915).

Marginella auriculata May, 1916

Pap. Proc. R. Soc. Tas. for 1915: 85, pl. 1, fig. 6. = Cystiscus tomlinianus (May, 1918) (q.v.) new name for M. auriculata May, 1916.

Paratypes: D15811, 23 adult specimens (3 damaged), dredged in 73 m (40 fm), off Thouin Bay, Tas., collected by W. L. May, date of collection unknown. D16084, 2 adult specimens, with same collection data as D15811.

Note: Holotype in TM (E677/8018), badly broken.

Marginella baca Cotton, 1949

Rec. S. Aust. Mus. 9(2): 200, pl. 20.

= Kogomea eucla (Cotton, 1944) new synonymy. Holotype: D14227, adult specimen, dredged dead in 183 m (100 fm), 7 miles east of Cape Pillar, Tas., collected by W. L. May, 18.xii.1907. (Figs 1C-D). Note: It can be seen from the figures that this shell and the type of Kogomea eucla (Figs 1K-L) are virtually identical and there are no distinctive features that can be used to separate the two forms. We therefore consider M. baca to be a junior synonym of K. eucla. This species is extremely similar to K. diplostrepta (May, 1916), but is approximately half the size of the latter, so a more



FIGURE 1. A-B: Marginella albida Tate, 1878 (= M. vincentiana Cotton, 1944), lectotype, SAM D13519, \times 9.9. C-D: M. baca Cotton, 1949, holotype, SAM D14227, \times 11.8. E-F: M. borda Cotton, 1944, holotype, SAM D14988, \times 10.8. G-H: M. cymbalum Tate, 1878, adult syntype, SAM D13521, \times 9.3. I-J: M. denticulata Tate, 1878 (= M. elliottae Cotton, 1944), syntype, SAM D14501, \times 22.3. K-L: M. eucla Cotton, 1944, holotype, SAM D14985, \times 11.2.

extensive investigation is required to establish their relationship. Type unique.

Marginella binivitta Laseron, 1948

Rec. Aust. Mus. 22(1): 39, pl. 5, fig. 11.

= Mesoginella binivitta (Laseron, 1948).

Syntypes: D14235, 3 adult specimens, dredged dead in sandy mud in 55-64 m (30-35 fm), Crookhaven, N.S.W., collected by C. F. Laseron, date of collection unknown.

Note: These specimens were obtained from Laseron, and are believed to be from the type series. This species may be synonymous with *Mesoginella olivella* (Reeve, 1865), but a more extensive investigation is required. Other syntypes in AM (C103363).

Marginella biplicata Tate & May, 1900. Trans. Proc. R. Soc. S. Aust. 24: 92.

= Kogomea diplostrepta (May, 1916) (q.v.) new name for M. biplicata Tate & May, 1900.

Syntype: D18635, immature specimen, dredged in 44 m (24 fm), Port Esperance, Tas., collected by W. L. May, date of collection unknown.

Note: This species was figured by Tate & May (1901). The other syntype is in TM (E634/7975), badly damaged.

Marginella borda Cotton, 1944

S. Aust. Nat. 22: 16, fig. 33.

= Alaginella borda (Cotton, 1944).

Holotype: D14988, adult specimen with dried animal, dredged in 100 m (55 fm), off Cape Borda, S.A., collected by J. C. Verco, January 1905. (Figs 1E-F).

Paratypes: D18645, 2 adult specimens, dredged dead in 90 m (49 fm), off Beachport, S.A., collected by J. C. Verco, date of collection unknown. D18646, 2 adult specimens (I damaged), dredged dead in 238 m (130 fm), off Cape Jaffa, S.A., collected by J. C. Verco, date of collection unknown. D18747, 4 adult specimens (I damaged), dredged dead in 82 m (45 fm), east of North Neptune Island, S.A., collected by J. C. Verco, date of collection unknown. D18648, I damaged adult specimen, dredged dead in 64 m (35 fm), King George Sound, W.A., collected by J. C. Verco, date of collection unknown. D18649, 2 adult specimens, dead collected, in beach sand, Hopetoun, W.A., collected by J. C. Verco, date of collection unknown.

Marginella caducocincta May, 1916

Pap. Proc. R. Soc. Tas. for 1915: 88, pl. 2, fig. 11. = Mesoginella caducocincta (May, 1916).

Paratypes: D15794, 16 adult specimens, dredged dead in 73 m (40 fm), off Thouin Bay, Tas., collected by W. L. May, date of collection unknown. D16083,

7 adult specimens, with same collection data as D15794.

Note: Holotype in TM (E623/7964).

Marginella cairoma Brookes, 1924

Trans. Proc. N.Z. Inst. 55: 154, pl. 7, figs 4-5.

= Dentimargo cairoma (Brookes, 1924).

Paratypes: D9447, 6 specimens (1 immature), Taipa, Doubtless Bay, N.Z., collected by A. E. Brookes, date of collection unknown.

Note: Holotype in AIM (TM1277).

Marginella cartwrighti Sowerby, 1915

Proc. Malac. Soc. Lond. 11(4): 214, text fig.

= Granulina cartwrighti (Sowerby, 1915). Syntypes: D9460, 2 adult specimens, Trincomalee, Ceylon (Sri Lanka), collector and date of collection unknown.

Note: Two other syntypes in BMNH (1919.12.31.45-46).

Marginella columnaria Hedley & May, 1908 Rec. Aust. Mus. 7: 120, pl. 23, fig. 19.

= Pillarginella columnaria (Hedley & May, 1908). Paratypes: D15798, 6 adult specimens (I damaged), dredged in 183 m (100 fm), 7 miles east of Cape Pillar, Tas., collected by W. L. May, 18.xii.1907. Note: Although Coan (1965) synonymised Pillarginella Gabriel, 1962 with Haloginella Laseron, 1957 (as a subgenus of Volvarina Hinds, 1844), examination of the radula of this species, which is the type species of the former, by one of us (DRH), suggests that Pillarginella is distinct from Volvarina. Holotype in AM (C28936), other paratypes in AM (C163392), TM (E625/7966), NMV (F30598) and BMNH.

Marginella concamerata May, 1918 Pap. Proc. R. Soc. Tas. for 1917: 104.

= Persicula concamerata (May, 1918).

Paratype: D15790, adult specimen, in kelp root, Frederick Henry Bay, Tas., collected by W. L. May, date of collection unknown.

Note: New name for *Marginella albomaculata* May, 1911 (*non* Schlüter, 1838), and therefore based on the same type series. Holotype in TM (E627/7968).

Marginella connectans May, 1911

Pap. Proc. R. Soc. Tas. for 1910: 387, pl. 14, fig. 11.

= Cystiscus connectans (May, 1911).

Paratypes: D15795, 9 adult specimens (3 damaged), dredged dead in 183 m (100 fm), 7 miles east of Cape Pillar, Tas., collected by W. L. May, 18.xii.1907. D16082, 1 adult specimen, with same collection data as D15795.

Note: Holotype in TM (E628/7969).

Marginella (Volvaria) consanguinea Smith, 1890 Proc. Zool. Soc. Lond. 60: 266, pl. 23, fig. 11.

= Cystiscus consanguineus (Smith, 1890).

Syntypes: D17540, 2 damaged adult specimens, from St Helena, collector and date of collection unknown.

Note: From the May Collection. Other syntypes in BMNH.

Marginella consobrina May, 1911

Pap. Proc. R. Soc. Tas. for 1910: 387, pl. 14, fig. 10. = Mesoginella consobrina (May, 1911).

Paratypes: D15792, 2 adult specimens, dredged dead in 183 m (100 fm), 7 miles east of Cape Pillar, Tas., collected by W. L. May, 18.xii.1907.

Note: Holotype in TM (E630/7971).

Marginella cratericula Tate & May, 1900 Trans. Proc. R. Soc. S. Aust. 24: 91.

= Cystiscus cratericulus (Tate & May, 1900). Syntype: D18634, adult specimen with dried animal, dredged in 18 m (10 fm), D'Entrecasteaux Channel, Tas., collected by W. L. May, date of collection unknown.

Note: This species was figured by Tate & May (1901). One other syntype in TM (E631/7972).

Marginella cylichnella May, 1918

Pap. Proc. R. Soc. Tas. for 1917: 104.

= Balanetta (Ovaginella) cylichnella (May, 1918). Paratypes: D15793, 8 adult specimens (2 damaged), dredged dead in 183 m (100 fm), 7 miles east of Cape Pillar, Tas., collected by W. L. May, 18.xii.1907. D18636, 1 adult specimen, with same collection data as D15793.

Note: New name for *Marginella microscopica* May, 1911 (*non* Tapparone Canefri, 1875), and therefore based on the same type series. Holotype in TM (E632/7973), broken.

Marginella cymbalum Tate, 1878

Trans. Proc. Rep. Phil. Soc. Adel. 1: 86.

= Cystiscus cymbalum (Tate, 1878).

Syntypes: D13521, 2 specimens (1 immature), in beach sand, Aldinga Bay, near Adelaide, S.A., collected by R. Tate, date of collection unknown. (Figs 1G-H).

Note: Other syntypes in BMNH (1879.10.28.7).

Marginella denticulata Tate, 1878.

Trans. Proc. Rep. Phil. Soc. Adel. 1: 87.

= Granulina elliottae (Cotton, 1944) (q.v.) new name for M. denticulata Tate, 1878.

Syntypes: D14501, 7 adult specimens (2 damaged), in beach sand, Wauraltie (Port Victoria), Yorke Peninsula, S.A., collected by R. Tate, date of collection unknown. (Figs 11-J).

Note: The type description only mentions three specimens, and as all the specimens in D14501 are of approximately equal size and form, it is impossible to isolate the actual syntypes. Therefore the status of the entire lot is questionable.

Marginella dentiens May, 1911

Pap. Proc. R. Soc. Tas. for 1910: 384, pl. 13, fig. 6.

= Volvarinella dentiens (May, 1911).

Paratypes: D15791, 7 adult specimens (2 damaged), dredged dead in 183 m (100 fm), 7 miles east of Cape Pillar, Tas., 18.xii.1907, and dredged dead in 146 m (80 fm), 10 miles east of Schouten 1sland, Tas., date of collection unknown, all collected by W. L. May.

Note: Holotype in TM (E633/7974).

Marginella diplostreptus May, 1916

Pap. Proc. R. Soc. Tas. for 1915: 76. = Kogomea diplostrepta (May, 1916).

Syntype: D18635, immature specimen, dredged in 44 m (24 fm), Port Esperance, Tas., collected by W. L. May, date of collection unknown.

Note: New name for *Marginella biplicata* Tate & May, 1900 (non Krauss, 1852), and therefore based on the same type series. This species was figured by Tate & May (1901) as *M. biplicata*. One other syntype in TM (E634/7975), badly damaged.

Marginella ealesae Powell, 1958

BANZARE Rep. Ser. B, 6(9): 200, text fig. B1.

= Marginella? ealesae Powell, 1958.

Holotype: D15505, possibly immature specimen with dried animal, dredged in 300 m, BANZARE Stn 39, off Enderby Land, Antarctica, (66°30′S, 49°45′E), collected by BANZARE, 17.i.1930. Note: As this species comes from a population which has received very little study and which may not be contiguous with other faunas, its generic

status cannot be accurately assigned on the basis of shell characters alone. Only examination of the radula will allow the genus to be assigned accurately.

Marginella elliottae Cotton, 1944

S. Aust. Nat. 22: 13.

= Granulina elliottae (Cotton, 1944).

Syntypes: D14501, 7 adult specimens (2 damaged), in beach sand, Wauraltie (Port Victoria), Yorke Peninsula, S.A., collected by R. Tate, date of collection unknown. (Figs 11–J).

Note: New name for Marginella denticulata Tate, 1878, (non Link, 1807, nec Conrad, 1830), and therefore based on the same type series. See note under that species concerning the status of these specimens.

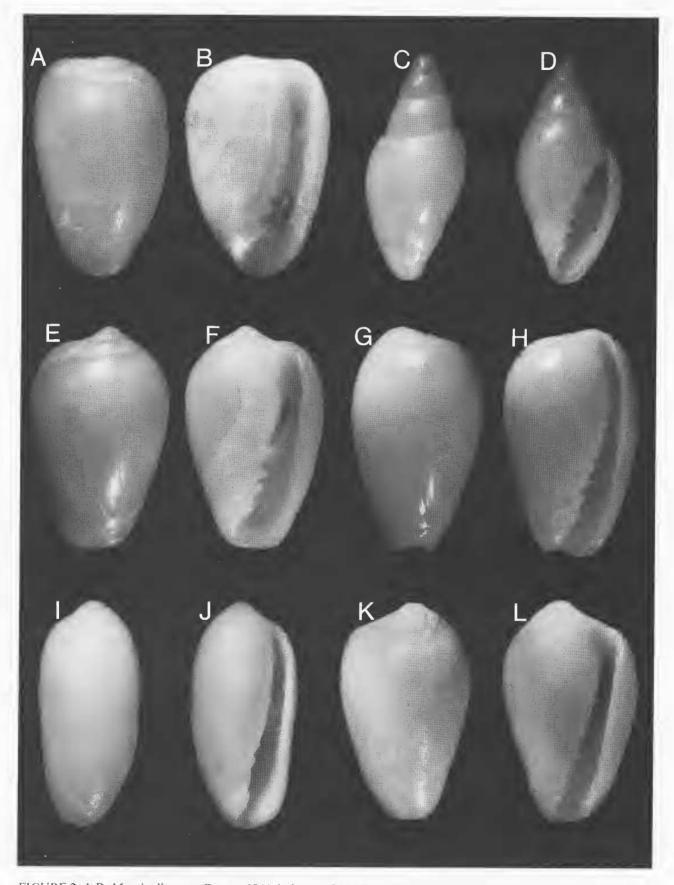


FIGURE 2. A-B: Marginella erma Cotton, 1944, holotype, SAM D14986, \times 18.5. C-D: M. jaffa Cotton, 1944, holotype, SAM D14982 \times 8.7. E-F: M. leia Cotton, 1944, holotype, SAM D14984, \times 6.4. G-H: M. newmanae Cotton, 1949, holotype, SAM D14229, \times 5.6. I-J: M. occidua Cotton, 1944, holotype, SAM D14987, \times 4.4. K-L: M. patria Cotton, 1949, holotype, SAM D14228, \times 13.4.

Marginella erma Cotton, 1944

S. Aust. Nat. 22: 15.

= Cystiscus angasi (Crosse, 1870) **new synonymy.** Holotype: D14986, damaged adult specimen, dredged in 183 m (100 fm), 7 miles east of Cape Pillar, Tas., collected by W. L. May, 18.xii.1907. (Figs 2A-B).

Note: This species was inadequately described and figured by Cotton (1944). It is apparently a minor variant of *Cystiscus angasi*, which is a species that exhibits considerable variability of shell shape and has a number of synonyms (Laseron 1957). Type unique.

Marginella eucla Cotton, 1944

S. Aust. Nat. 22: 12, fig. 24.

= Kogomea eucla (Cotton, 1944).

Holotype: D14985, adult specimen, dredged dead in 146 m (80 fm), off Eucla, W.A., collected by J. C. Verco, March 1912. (Figs 1K-L).

Paratypes: D15915, 4 adult specimens, with same collection data as holotype. D18667, 58 specimens (21 damaged, 4 immature), dredged dead in 148 m (81 fm), 80 miles west of Eucla, W.A., collected by J. C. Verco, March 1912. D18668, 19 specimens (3) damaged, 4 immature), dredged dead in 146-220 m (80-120 fm), west of Eucla, W.A., collected by J. C. Verco, March 1912. D18669, 9 adult specimens (2 damaged), in beach sand, Hopetoun, W.A., collected by J. C. Verco, date of collection unknown. D18670, 24 specimens (5 damaged, 4 immature), dredged dead in 73 m (40 fm), off Beachport, S.A., collected by J. C. Verco, date of collection unknown. D18671, 2 adult specimens, dredged dead in 90 m (49 fm), other collection data same as D18670. D18672, 25 specimens (4 damaged, 7 immature), dredged dead in 201 m (110 fm), other collection data same as D18670. D18673, 24 specimens (4 damaged, 1 immature), dredged dead in 274 m (150 fm), other collection data same as D18670. D18674, 15 specimens (1 damaged, 6 immature), dredged dead in 366 m (200 fm), other collection data same as D18670. D18675, 33 specimens (5 damaged, 9 immature), dredged dead in 164 m (90 fm), off Cape Jaffa, collected by J. C. Verco, date of collection unknown. D18676, 16 specimens (4 damaged, 1 immature), dredged dead in 238 m (130 fm), other collection details same as D18675. D18677, 41 specimens (11 damaged, 3 immature), dredged dead in 100 m (55 fm), off Cape Borda, Kangaroo Island, S.A., collected by J. C. Verco, date of collection unknown. D18678, 30 specimens (2 damaged, 12 immature), dredged dead in 113 m (62 fm), northwest of Cape Borda, Kangaroo Island, S.A., collected by J. C. Verco, date of collection unknown. D18679, 1 adult specimen, dredged dead in 36 m (20 fm), off Newland Head, S.A., collected by J. C. Verco, date of collection unknown. D18680,

6 adult specimens (3 damaged), dredged dead in 27-36 m (15-20 fm), off St Francis Island, Nuyts Archipelago, S.A., collected by J. C. Verco, date of collection unknown.

Note: Marginella baca Cotton, 1949 is a junior synonym.

Marginella freycineti May, 1916

Pap. Proc. R. Soc. Tas. for 1915: 86, pl. 2, fig. 9. = Cystiscus freycineti (May, 1916).

Paratypes: D16174, 22 adult specimens, dredged dead in 73 m (40 fm), Thouin Bay, Tas., collected by W. L. May, date of collection unknown. D16088, 3 adult specimens, from Tas., collected by W. L. May, date of collection unknown.

Note: This species may be a form of *Cystiscus angasi* (Crosse, 1870). Holotype in TM (E636/7977).

Marginella gabrieli May, 1911

Pap. Proc. R. Soc. Tas. for 1910: 386, pl. 13, fig. 9. = Volvarinella? gabrieli (May, 1911).

Paratypes: D15805, 8 adult specimens (1 with dried animal), dredged in 183 m (100 fm), 7 miles east of Cape Pillar, Tas., collected by W. L. May, 18.xii.1907. D16077, 2 adult specimens, from Tas., collected by W. L. May, date of collection unknown. Note: The generic placement of this species is problematical and cannot be resolved on the basis of shell characters alone. Holotype in TM (E642/7983).

Marginella gatliffi May, 1911

Pap. Proc. R. Soc. Tas. for 1910: 385, pl. 13, fig. 8. = Protoginella gatliffi (May, 1911).

Paratypes: D15987, 47 adult specimens (9 damaged), dredged dead off Schouten Island, Tas., collected by W. L. May, date of collection unknown. D16805, 2 adult specimens, dredged dead in 73 m (40 fm), off Schouten Island, Tas., collected by W. L. May, 27.iii.1910.

Note: Holotype in TM (E643/7984).

Marginella georgeana May, 1916

Pap. Proc. R. Soc. Tas. **for 1915**: 88, pl. 3, fig. 13. = *Austroginella georgeana* (May, 1916).

Paratypes: D15803, 3 specimens (1 immature), dredged dead in 27 m (15 fm), near George III Reef, below Southport, Tas., collected by W. L. May, date of collection unknown.

Note: Laseron (1957) placed this species in his genus *Plicaginella*, which has been synonymised with *Austroginella* by Coovert (1988) on the basis of radular morphology. Holotype in TM (E645/7985).

Marginella gracilis May, 1911

Pap. Proc. R. Soc. Tas. for 1910: 383, pl. 13, fig. 4. = Volvarinella maugeana (Hedley, 1915) (q.v.) new name for M. gracilis May, 1911.

Paratypes: D15815, 9 adult specimens, dredged dead in 183 m (100 fm), 7 miles east of Cape Pillar, Tas., collected by W. L. May, 18.xii.1907. D16087, 2 adult specimens, with same collection data as D15815. Note: Holotype in TM (E657/7998).

Marginella hedleyi May, 1911

Pap. Proc. R. Soc. Tas. for 1910: 381, pl. 13, fig. 1. = Volvarina (Haloginella) hedleyi (May, 1911). Paratypes: D15799, 11 specimens (5 immature, 3 adult and 1 immature with dried animals), dredged in 183 m (100 fm), 7 miles east of Cape Pillar, Tas., collected by W. L. May, 18.xii.1907. D16076, 2 adult specimens, dead collected, with same collection data as D15799.

Note: Holotype in TM (E646/7987).

Marginella inaequidens May, 1913

Pap. Proc. R. Soc. Tas. for 1912: 44, pl. 2, fig. 1. = Cystiscus inaequidens (May, 1913).

Paratypes: D15804, 16 adult specimens (1 damaged), dredged dead in 183 m (100 fm), 7 miles east of Cape Pillar, Tas., 18.xii.1907, and dredged dead in 73 m (40 fm), off Schouten Island, Tas., 27.iii.1910, all collected by W. L. May. D16078, 3 specimens (1 immature, 1 damaged), dredged dead in 183 m (100 fm), off Cape Pillar, Tas., collected by W. L. May, 18.xii.1907.

Note: Holotype in TM (E647/7988), badly broken.

Marginella incerta May, 1920

Pap. Proc. R. Soc. Tas. for 1919: 59, pl. 16, fig. 8. = Cystiscus incertus (May, 1920).

Paratypes: D15806, 14 adult specimens (2 damaged), dredged dead in 73 m (40 fm), Thouin Bay, Tas., collected by W. L. May, date of collection unknown. Note: This species is closely related to *Cystiscus angasi* (Crosse, 1870). Holotype in TM (E649/7990).

Marginella indiscreta May, 1911

Pap. Proc. R. Soc. Tas. for 1910: 388, pl. 14, fig. 12. = Cystiscus indiscretus (May, 1911).

Paratypes: D15813, 5 adult specimens (1 damaged), dredged dead in 183 m (100 fm), 7 miles east of Cape Pillar, Tas., collected by W. L. May, 18.xii.1907. D16080, 1 adult specimen, with same

collection data as D15813. Note: Holotype in TM (E651/7992).

Marginella jaffa Cotton, 1944

S. Aust. Nat. 22: 11, fig. 13.

= Volvarinella jaffa (Cotton, 1944).

Holotype: D14982, adult specimen, dredged dead

in 238 m (130 fm), off Cape Jaffa, S.A. collected by J. C. Verco, date of collection unknown. (Figs 2C-D).

Paratypes: D15914, 4 adult specimens, with same collection data as holotype. D18655, 11 specimens (1 damaged, 1 immature), dredged dead in 201 m (110 fm), off Beachport, S.A., collected by J. C. Verco, date of collection unknown. D18656, 11 specimens (1 damaged, 4 immature), dredged dead in 274 m (150 fm), other collection data same as D18655. D18657, 14 specimens (2 damaged, 3 immature), dredged dead in 366 m (200 fm), other collection data same as D18655. D18658, 1 damaged adult specimen, dredged dead in 100 m (55 fm), off Cape Borda, Kangaroo Island, S.A., collected by J. C. Verco, date of collection unknown. D18659, 20 specimens (5 damaged, 5 immature), dredged dead in 190 m (104 fm), 35 miles south-west of Neptune Islands, S.A., collected by J. C. Verco, date of collection unknown. D18660, 18 specimens (8 damaged, 7 immature), dredged dead in 148 m (81 fm), 80 miles west of Eucla, W.A., collected by J. C. Verco, March 1912. D18661, 1 adult specimen. dead collected, in beach sand, Hopetoun, W.A., collected by J. C. Verco, date of collection unknown. Note: This species is very similar to Volvarinella cuneata (Laseron, 1948).

Marginella leia Cotton, 1944

S. Aust. Nat. 22: 10, fig. 11.

= Mesoginella turbinata (Sowerby, 184)

= Mesoginella turbinata (Sowerby, 1846) new synonymy.

Holotype: D14984, adult specimen, dredged dead in 274 m (150 fm), off Beachport, S.A., collected by J. C. Verco, date of collection unknown. (Figs 2E-F).

Paratypes: D18653, 7 adult specimens, with same collection data as holotype. D18651, 5 adult specimens, dredged dead in 73 m (40 fm), other collection data same as holotype. D18652, 17 specimens (6 damaged, 1 immature), dredged dead in 201 m (110 fm), other collection data same as holotype. D18654, 6 adult specimens (1 damaged), dredged dead in 366 m (200 fm), other collection data same as holotype. D18650, 3 specimens (2 immature), dredged dead in 113 m (62 fm), off Cape Borda, Kangaroo 1sland, S.A., collected by J. C. Verco, date of collection unknown.

Note: The original illustration of this species was misleading as it did not show an anterior canal which is very well developed in the holotype. The types are heterogeneous in form and appear to be minor variants of *Mesoginella turbinata*, so we regard *M. leia* as a junior synonym of the latter. This change renders invalid the genus *Spiroginella*

Laseron, 1957.

Marginella lodderae May, 1911

Pap. Proc. R. Soc. Tas. for 1910: 384, pl. 13, fig. 5. = Volvarinella lodderae (May, 1911).

Paratype: D15814, damaged adult specimen, dredged dead in 183 m (100 fm), 7 miles east of Cape Pillar, Tas., collected by W. L. May, 18.xii.1907.

Note: This specimen was labelled by Verco 'Co-Type but somewhat uncertain'. As this specimen is from the May Collection, and was collected at the same time and locality as the type, we believe it is a valid paratype. Holotype in TM (E656/7997).

Marginella (Glabella) lurida Suter, 1909

Proc. Malac. Soc. Lond. 8(3): 183, pl. 7, fig. 14.

= Volvarina lurida (Suter, 1909).

Paralectotypes: D9474, 2 adult specimens (1 broken), dredged dead in 27 m (15 fm), Foveaux Strait, N.Z., collector and date of collection unknown.

Note: Lectotype in NZGS (TM1086), selected by Boreham (1959).

Marginella malina Hedley, 1915

Proc. Linn. Soc. N.S.W. 39(4): 725, pl. 82, fig. 65.

Triginella malina (Hedley, 1915).

Paratypes: D16109, 6 specimens (1 immature, 2 broken), dredged dead in 146 m (80 fm), 22 miles east of Narrabeen, N.S.W., collected by W. A. Haswell, H.M.C.S. 'Miner', 7.vi.1906.

Note: Holotype in AM (C25936), other paratypes in AM (C18242, C163384) and BMNH (1915.12.31.114-117).

Marginella maugeana Hedley, 1915 Proc. Linn. Soc. N.S.W. 39(4): 727.

= Volvarinella maugeana (Hedley, 1915).

Paratypes: D15815, 9 adult specimens, dredged dead in 183 m (100 fm), 7 miles east of Cape Pillar, Tas., collected by W. L. May, 18.xii.1907. D16087, 2 adult specimens, with same collection data as D15815. Note: New name for Marginella gracilis May, 1911 (non C. B. Adams, 1852), and therefore based on the same type series. Holotype in TM (E657/7998).

Marginella mayii Tate in Tate & May, 1900 Trans. Proc. R. Soc. S. Aust. 24: 93.

= Volvarinella mayii (Tate, 1900).

Syntypes: D13523, 1 adult specimen, dead collected, Frederick Henry Bay, Tas., collected by W. L. May, date of collection unknown. D16131, 1 broken specimen, dead collected, from Tas., collected by W. L. May, date of collection unknown.

Note: This species was figured by Tate & May (1901). Other syntypes in TM (E659/8000) and BMNH (1912.6.23.1-2).

Marginella microscopica May, 1911

Pap. Proc. R. Soc. Tas. for 1910: 389, pl. 14, fig. 13. = Balanetta (Ovaginella) cylichnella (May, 1918) (q.v.) new name for M. microscopica May, 1911. Paratypes: D15793, 8 adult specimens (2 broken), dredged dead in 183 m (100 fm), 7 miles east of Cape Pillar, Tas., collected by W. L. May, 18.xii.1907. D18636, 1 adult specimen, with same collection data as D15793.

Note: The generic affinities of this species are problematical and examination of the animal is necessary before accurate assignment can be made. Holotype in TM (E632/7973), broken.

Marginella multidentata May, 1920

Pap. Proc. R. Soc. Tas. for 1919: 59, pl. 16, fig. 7. = Cystiscus multidentatus (May, 1920).

Paratype: D15802, adult specimen, dredged in 18 m (10 fm), off Gordon, D'Entrecasteaux Channel, Tas., collected by W. L. May, December 1918. Note: Holotype in TM (E662/8003).

Marginella newmanae Cotton, 1949 Rec. S. Aust. Mus. 9(2): 199, pl. 20.

= Persicula pulchella (Kiener, 1834) new synonymy. Holotype: D14229, adult specimen, Esperance, W.A., collector and date of collection unknown. (Figs 2G-H).

Note: Close examination shows the presence of a faint pattern of orange zig-zag lines not mentioned in the type description. The holotype and the specimens listed and labelled M. newmanae by Cotton (1949) (SAM D18727-33) encompass all the forms of Persicula pulchella found in southern Australia, and we therefore regard M. newmanae as a junior synonym of P. pulchella. This species was placed in the genus Epiginella by Laseron (1957).

Marginella obesula May, 1920

Pap. Proc. R. Soc. Tas. for 1919: 58, pl. 14, fig. 5.

= Cystiscus obesulus (May, 1920).

Paratypes: D15809, 7 adult specimens, in kelp rhizophores, Frederick Henry Bay, Tas., collected by W. L. May, date of collection unknown.

Note: This species is very closely related to *Cystiscus* angasi (Crosse, 1870) and can only be distinguished from that species by the distinctive orange and brown colours of the living animal as described by May (1920). Of the SAM types, four were dead when collected and their assignment must be considered doubtful. Of the remainder, definite traces of the characteristic colours of the animal can be seen through the shell of one specimen and it is certainly this species. The animal remains in the other two have deteriorated to the stage where it is impossible to conclusively identify the species,



FIGURE 3. A-B: Marginella pattisoni Cotton, 1944, holotype, SAM D14983, \times 5.3. C-D: M. sica Cotton, 1949, holotype, SAM D14230, \times 10.0. E-F: M. subbulbosa Tate, 1878, syntype, SAM D13520, \times 13.3. G-H: M. vercoi May, 1911, paratype, SAM D15816, \times 7.8. I-J: M. weedingi Cotton, 1944, holotype, SAM D14989, \times 7.8.

but it must be assumed that May's original identification was correct. More detailed taxonomic work is necessary to establish the validity of this species. Holotype in TM (E667/8008).

Marginella occidua Cotton, 1944

S. Aust. Nat. 22: 15, fig. 24.

= Volvarina (Haloginella) occidua (Cotton, 1944). Holotype: D14987, adult specimen, Albany, W.A., collector and date of collection unknown. (Figs 21-J).

Paratypes: D18681, 2 adult specimens, dead collected, Rottnest Island, W.A., collector and date of collection unknown. D18682, 1 immature specimen, dredged dead in 40 m (22 fm), off Bunbury, W.A., collected by J. C. Verco, date of collection unknown. D18683, 8 specimens (3 immature), dredged dead in 64 m (35 fm), off Hopetoun, W.A., collected by J. C. Verco, date of collection unknown. D18684, 18 adult specimens (2 damaged), dead collected, Albany, collected by W. G. Torr, date of collection unknown.

Note: The paratype lots contain specimens of two distinct spire and columellar plication morphologies. As shell sizes and colour patterns are the same throughout, examination of the animals is necessary to establish the status of the forms.

Marginella patria Cotton, 1949

Rec. S. Aust. Mus. 9(2): 201, pl. 20.

= Mesoginella patria (Cotton, 1949).

Holotype: D14228, adult specimen, dredged dead in 64 m (35 fm), off Hopetoun, W.A., collected by J. C. Verco, date of collection unknown. (Figs 2K-L).

Note: Laseron (1957) placed this species in the genus *Kogomea* Habe, 1951. However, some important shell features, notably the form of the columellar plications and labial dentition, do not correspond with those of that genus.

Marginella pattisoni Cotton, 1944

S. Aust. Nat. 22: 11, fig. 10.

= Mesoginella turbinata (Sowerby, 1846) new synonymy.

Holotype: D14983, adult specimen, dead collected, Encounter Bay, S.A., collected by J. C. Verco, date of collection unknown. (Figs 3A-B).

Paratypes: D18862, 4 adult specimens, dredged live in 48 m (26 fm), 38 miles south-east of Newland Head, S.A., collected by J. C. Verco, date of collection unknown. D18663, 1 adult specimen, dead collected, Guichen Bay, S.A., collected by J. C. Verco, date of collection unknown. D18664, 43 specimens (19 damaged, 6 immature), in beach sand, Aldinga, near Adelaide, S.A., collector and date of collection unknown. D18665, 6 adult specimens, dead collected, Royston Head, Yorke

Peninsula, S.A., collected by E. H. Matthews, date of collection unknown. D18666, 1 adult specimen, live collected, MacDonnell Bay, S.A., collected by W. G. Torr, date of collection unknown.

Note: The shell characters of this species are within the normal range of variability observed in populations of *Mesoginella turbinata*, and we consider it to be merely a broad variant of that species.

Marginella praetermissa May, 1916

Pap. Proc. R. Soc. Tas. for 1915: 87, pl. 2, fig. 12. = Austroginella praetermissa (May, 1916).

Paratypes: D15808, 3 adult specimens, from Tas., collector and date of collection unknown.

Note: Laseron (1957) placed this species in his genus *Plicaginella*, which has been synonymised with *Austroginella* by Coovert (1988) on the basis of radular morphology. Holotype in TM (E670/8011).

Marginella procella May, 1916

Pap. Proc. R. Soc. Tas. for 1915: 87, pl. 2, fig. 10. = Mesoginella olivella (Reeve, 1865).

Paratypes: D15810, 4 specimens (1 immature), dredged dead in 73 m (40 fm), off Schouten Island, Tas., collected by W. L. May, 27.iii.1910.

Note: May synonymised this species with *M. infelix* Jousseaume, and subsequently, *M. olivella* (see Laseron 1948). These two species have been considered to be synonymous, but the shells of *M. procella* and *M. infelix* are shorter and proportionately wider than those of *M. olivella*, and more work is necessary to determine the status of both forms. Type in TM (E652/7993).

Marginella punicea Laseron, 1948

Rec. Aust. Mus. 22(1): 38, pl. 5, fig. 7.

= Kogomea agapeta (Watson, 1886) new synonymy. Syntype: D14237, adult specimen, dredged alive in 11–16 m (6–9 fm), Sow and Pigs Reef, Port Jackson, N.S.W., collected by C. F. Laseron, date of collection unknown.

Note: This specimen was obtained from Laseron, and is believed to be part of the type series. The types of this species conform exactly to the description of *Kogomea agapeta* (Watson, 1886) and have been compared with a photograph of the holotype (BMNH 1887.2.9.911). The type localities for *M. punicea* are very close to that of *K. agapeta* and it is therefore considered to be a synonym. Other syntypes in AM (C103367).

Marginella ringens May, 1920

Pap. Proc. R. Soc. Tas. for 1919: 58, pl. 14, fig. 6. = Cystiscus angasi (Crosse, 1870) new synonymy. Paratypes: D15807, 8 adult specimens (1 damaged, 1 with dried animal), Kelso Bay, Tamar Heads, Tas., collected by W. L. May, date of collection unknown. Note: The shell morphology of this species is within the range of variability of *Cystiscus angasi*, which exhibits an extraordinarily large degree of variation in shell shape (Laseron 1957). We consider it a synonym of that species in the absence of any distinctive features. Holotype in TM (E671/8012).

Marginella (Volvarina) roberti Bavay, 1917 J. Conch. Paris 63: 104, pl. 2, fig. 8.

= Volvarina roberti (Bayay, 1917).

Syntype: D17541, adult specimen, from Madeira, collector and date of collection unknown.

Note: From the May Collection, not the figured syntype. One syntype is reputed to be in the Desjardins Collection, Paris, but the collection cannot be presently located. Other syntypes are held in the Coen Collection, in the Hebrew University, Jerusalem, but they do not include the figured specimen (S. Gofas, pers. comm.).

Marginella schoutanica May, 1913

Pap. Proc. R. Soc. Tas. for 1912: 45, pl. 2, fig. 2. = Mesoginella schoutanica (May, 1913).

Paratypes: D15811, 19 adult specimens (3 damaged, 1 with dried animal), dredged in 73 m (40 fm), 3 miles east of Schouten Island, Tas., collected by W. L. May, 27.iii.1910. D16081, 3 adult specimens, with same collection data as D15811.

Note: Holotype in TM (E672/8013).

Marginella shorehami Pritchard & Gatliff, 1899 Proc. R. Soc. Vic. 11(2): 179, pl. 20, fig. 2.

= Cystiscus angasi (Crosse, 1870).

Syntypes: D16098, 3 adult specimens, Shoreham Beach, Westernport Bay, Vic., collector and date of collection unknown.

Note: This species was synonymised with *Cystiscus angasi* (Crosse, 1870) by Laseron (1957). Another syntype in NMV (F548).

Marginella sica Cotton, 1949

Rec. S. Aust. Mus. 9(2): 200, pl. 19.

= Austroginella vercoi (May, 1911) **new synonymy.** Holotype: D14230, adult specimen, dredged dead in 366 m (200 fm), off Eucla, W.A., collected by J. C. Verco, March 1912. (Figs 3C-D).

Note: As can be seen from the figures, the shell closely resembles that of A. vercoi (May, 1911) (Figs 3G-H). The minor differences from that species, in size, the form of the sutures, and lip dentition (Cotton 1949) are all features that exhibit variability in A. vercoi populations and are insufficient to justify separation on the basis of a single specimen. The dimensions of the type are similar to those of the holotype of A. vercoi (TM E681/8022). Type unique.

Marginella sinapi Laseron, 1948

Rec. Aust. Mus. 22(1): 40, pl. 5, fig. 15.

= Mesoginella sinapi (Laseron, 1948).

Syntypes: D14232, 4 adult specimens (1 damaged), in shell sand, Manly Ocean Beach, N.S.W., collector and date of collection unknown.

Note: These specimens were obtained from Laseron, and are believed to be from the type series. Other syntypes in AM (C103360).

Marginella stilla Hedley, 1903

Mem. Aust. Mus. 4: 367, text fig. 90.

= Mesoginella stilla (Hedley, 1903).

Paratypes: D19099, 2 adult specimens, trawled in mud and pebbles, 137-115 m, 8-12.7 km off Port Kembla, N.S.W., 34°28′S, 151°06-03′E, H.M.C.S. 'Thetis' Stn 49, collected by E. R. Waite, 18.iii.1898. Note: Laseron (1957) placed this species in the genus *Kogomea* Habe, 1951. However, some important shell features, including the form of the columellar plications and labial dentition, do not correspond with those of that genus. Holotype (C16356) and other paratypes (C163382, C163383) in AM.

Marginella subauriculata May, 1916

Pap. Proc. R. Soc. Tas. for 1915: 86, pl. 2, fig. 7.

= Cystiscus subauriculatus (May, 1916).

Paratypes: D16090, 1 damaged adult specimen, dredged dead in 73 m (40 fm), Thouin Bay, Tas., collected by W. L. May, date of collection unknown. D16091, 4 adult specimens (1 damaged, 1 with dried animal), with same collection data as D16090. Note: The species is very closely related to *Cystiscus*

angasi (Crosse, 1870) and may be a form of that species. Holotype in TM (E674/8015), badly broken.

Marginella subbulbosa Tate, 1878

Trans. Proc. Rep. Phil. Soc. Adel. 1: 86.

= Kogomea subbulbosa (Tate, 1878).

Syntypes: D13520, 4 adult specimens (1 damaged), in beach sand, Wauraltie (Port Victoria), Yorke Peninsula, S.A., collected by R. Tate, date of collection unknown. (Figs 3E-F).

Note: The type description only mentions two specimens, and as all the specimens in D13520 are of approximately equal size and form, it is impossible to isolate the actual syntypes. Therefore the status of the whole lot is questionable.

Marginella thouinensis May, 1916

Pap. Proc. R. Soc. Tas. for 1915: 86, pl. 2, fig. 8.

= Cystiscus thouinensis (May, 1916)

Paratypes: D16089, 2 adult specimens, dredged dead in 73 m (40 fm), Thouin Bay, Tas., collected by W. L. May, date of collection unknown. D16189, 26 adult specimens, with same collection data as D16089.

Note: Holotype in TM (E676/8017).

Marginella tomliniana May, 1918

Pap. Proc. R. Soc. Tas. for 1917: 104.

= Cystiscus tomlinianus (May, 1918).

Paratypes: D15811, 23 adult specimens (3 damaged), dredged in 73 m (40 fm), off Thouin Bay, Tas., collected by W. L. May, date of collection unknown. D16084, 2 adult specimens, with same collection data as D15811.

Note: New name for *Marginella auriculata* May, 1916 (non Menard de la Groye, 1811), and therefore based on the same type series. Holotype in TM (E677/8018), badly broken.

Marginella vercoi May, 1911

Pap. Proc. R. Soc. Tas. for 1910: 385, pl. 13, fig. 7. = Austroginella vercoi (May, 1911).

Paratypes: D15816, 9 adult specimens, dredged in 183 m (100 fm), 7 miles east of Cape Pillar, Tas., collected by W. L. May, 18.xii.1907. D16079, 2 adult specimens, with same collection data as D15816. (Figs 3G-H).

Note: Holotype in TM (E681/8022).

Marginella vincentiana Cotton, 1944.

S. Aust. Nat. 22: 15, fig. 30.

= Volvarina (Haloginella) vincentiana (Cotton, 1944).

Lectotype: D13519, adult specimen, in shell sand, Marino, near Adelaide, S.A., collected by R. Tate, date of collection unknown. (Lectotype selected here.) (Figs 1A-B).

Paralectotypes: D18633, 7 specimens (2 immature), with same collection data as lectotype.

Note: New name for *Marginella albida* Tate, 1878, (non Lamarck, 1822), and therefore based on the same type series. See note for *M. albida* for further information on types.

Marginella weedingi Cotton, 1944

S. Aust. Nat. 22: 16, fig. 31.

= Protoginella geminata (Hedley, 1912) new synonymy.

Holotype: D14989, adult specimen with dried animal, dredged in 36 m (20 fm), Backstairs Passage, S.A., collected by J. C. Verco, date of collection unknown. (Figs 31-J).

Paratypes: D18637, 14 specimens (11 damaged, 1 immature), dredged dead in 164 m (90 fm), off Cape

Jaffa, S.A., collected by J. C. Verco, date of collection unknown. D18638, 25 adult specimens, dredged dead in 100 m (55 fm), off Cape Borda, Kangaroo Island, S.A., collected by J. C. Verco, date of collection unknown. D18639, 2 adult specimens (1 damaged), dredged dead in 110 m (60 fm), other collection data same as D18638. D18640, 42 specimens (13 damaged, 1 immature), dredged dead in 73 m (40 fm), off Beachport, S.A., collected by J. C. Verco, date of collection unknown. D18641, 1 adult specimen, dredged dead in 183 m (100 fm), other collection data same as D18640. D18642, 19 adult specimens (8 damaged), dredged dead in 201 m (110 fm), other collection data same as D18640. D18643, 13 specimens (1 damaged, 1 immature), dredged dead in 274 m (150 fm), other collection data same as D18640. D18644, 6 adult specimens (3 damaged), dredged dead in 366 m (200 fm), other collection data same as D18640.

Note: Cotton (1944) originally described the species as being larger and narrower than *P. geminata*, as well as having differently shaped columellar plications. However, the characteristics of this species are well within the normal range observed for *P. geminata* and examination of the types and other specimens from Gulf St Vincent, S.A., (SAM D6851) supports the conclusion that *M. weedingi* is a junior synonym of *P. geminata*.

ACKNOWLEDGMENTS

We would like to thank Catherine and Marilyn Hewish for help with the collection of specimen data. The invaluable help of Mr G. Coovert of the Dayton Museum of Natural History in providing bibliographic information, specimen locations and helpful discussion, is gratefully acknowledged. Help with specimen locations and registration numbers was kindly provided by Dr S. Gofas, Service Biostratographie, France. The assistance and cooperation of Ms S. Boyd (NMV), Mr I. Loch (AM), Ms E. Turner (TM), Ms S. Morris (BMNH) and Mr B. Stephenson (AIM), and the advice of Mr W. Zeidler (SAM), is also gratefully acknowledged. Mr G. Coovert, Mr I. Loch and Mr W. Zeidler are also thanked for critical comments on the manuscript. The photographs were taken by Mrs J. Forrest. This work was supported in part by a grant to D. R. Hewish from the Keith Sutherland Award, administered by AM.

REFERENCES

- ADAMS, C. B. 1852. Catalogue of shells collected at Panama, with notes on synonymy, station, and habitat. *Annals of the Lyceum of Natural History, New York* 5: 229–549.
- BOREHAM, A. 1959. Biological type specimens in the New Zealand Geological Survey. 1. Recent Mollusca. *New Zealand Geological Survey, Palaeontological Bulletin* **30**: 1-87.
- COAN, E. V. 1965. A proposed reclassification of the family Marginellidae. *Veliger* 7: 184–194, figs 1–9.
- CONRAD, T. A. 1830. On the geology and organic remains of a part of the Peninsula of Maryland. *Journal of the Academy of Natural Sciences, Philadelphia* 6: 205-230, pls 9-10.
- COOVERT, G. A. 1988. Type species of the genera *Austroginella* and *Mesoginella* and their synonyms. *Marginella Marginalia* 4: 9-26, figs. 1-9.
- COOVERT, G. A. 1989. A literature review and summary of published marginellid radulae. *Marginella Marginalia* 7: 1-17, figs 1-59.
- COTTON, B. C. 1944. Australian margin shells (Marginellidae). *South Australian Naturalist* 22: 9-16, pls 5-6.
- COTTON, B. C. 1949. Australian Recent and Tertiary Mollusca, family Marginellidae. *Records of the South Australian Museum* 9: 199-224, pl. 17-20.
- CROSSE, H. 1870. Diagnoses Molluscorum novorum. *Journal de Conchyliologie* **18**: 301–304.
- GABRIEL, C. J. 1962. Additions to the marine molluscan fauna of south-eastern Australia including descriptions of new genus *Pillarginella*, six new species and two subspecies. *Memoirs of the National Museum of Victoria* 25: 177-210, 1 pl.
- GOULD, A. A. 1860. Descriptions of new shells collected by the North Pacific Exploring Expedition. *Proceedings* of the Boston Society of Natural History 7: 382–389.
- HABE, T. 1951. Marginellidae and Hydrocenidae in Japan. Pp. 101-108 *in* 'Illustrated Catalogue of Japanese Shells'. Vol 1. Ed. T. Kuroda.
- HEDLEY, C. 1912. Descriptions of some new or noteworthy shells in the Australian Museum. *Records of the Australian Museum* 8: 131-160, pls 42-45.
- HINDS, R. B. 1844. Descriptions of Marginellae collected during the voyage of H.M.S. 'Sulphur', and from the collections of Mr Cuming. *Proceedings of the Zoological Society of London* 14: 72-77.
- KIENER, L. C. 1834. Genre Marginelle. 'Spécies général et Iconographie des Coquilles vivantes'. J. B. Ballière et Fils: Paris. Pp. 1-44, pls 1-13.
- KRAUSS, C. F. F. 1852. Neue Kap'sche Mollusken, als Zusatz zu meiner Schrift 'Die südafrikanishchen Mollusken'. Archiv für Naturgeschichte 18: 29-40.

- LAMARCK, J. B. P. A. DE M. DE. 1799. Prodrome d'une nouvelle classification des coquilles. *Mémoires de la Société d' Histoire Naturelle, Paris* 1: 63-91.
- LAMARCK, J. B. P. A. DE M. DE. 1822. 'Histoire naturelle des animaux sans vertèbres.' Vol. 7, pp. 1–171. Guiraudet: Paris.
- LASERON, C. F. 1948. New South Wales Marginellidae. *Records of the Australian Museum* 22: 35-48, pls 5-6.
- LASERON, C. F. 1957. A new classification of the Australian Marginellidae (Mollusca) with a review of species from the Solanderian and Dampierian zoogeographical provinces. *Australian Journal of Marine and Freshwater Research* 8: 274-311.
- LINK, H. F. 1807. 'Beschreibung der Naturalien-Sammlung der Universität zu Rostock. Pt 2'. Adlers Erben: Rostock.
- MAY, W. L. 1920. New species of Tasmanian Mollusca, with critical remarks on several species, and additions to the list. *Papers and Proceedings of the Royal Society of Tasmania* for 1919: 55-69, pls 14-17.
- MENARD DE LA GROYE, M. F. J. B. 1811. Sur un petit coquillage de la Méditerranée qui est analogue à des fossiles des environs de Paris et Bordeaux. *Annales du Muséum d' Histoire Naturelle, Paris* 17: 331-332.
- REEVE, L. A. 1865. Monograph of the genus *Erato*. *Conchologia Iconica* 7: figs 1-18.
- SCHLÜTER, F. R. 1838. 'Kurzgefasstes systematisches Verzeichniss meiner Conchyliensammlung nebst Andeutung aller bis jetzt von mir bei Halle gefundenen Land- und Flussconchylien zur Erleichterung des Tauches für Freunde der Conchyliologie'. Halle.
- SOWERBY, G. B. 1846. Monograph of the genus *Marginella. Thesaurus Conchyliorum* 1: 239-406, pls 68-78
- TAPPARONE CANEFRI, C. 1875. Contribuzioni per una fauna Malacologica delle Isole Papuane. *Annali del Museo Civico di Storia Naturale, Genova* 7: 1028-1033.
- TATE, R. 1878. The Recent Marginellidae of South Australia. *Transactions, Proceedings and Reports of the Philosophical Society, Adelaide* 1: 85-93.
- TATE, R. & MAY, W. L. 1900. Descriptions of new genera and species of Australian Mollusca (chiefly Tasmanian). *Transactions of the Royal Society of South Australia* **24**: 90–103.
- TATE, R. & MAY, W. L. 1901. A revised census of the marine Mollusca of Tasmania. *Proceedings of the Linnean Society of New South Wales* 26: 344–471, pls 23–27.
- WATSON, R. B. 1886. Report on the Scaphopoda and Gastropoda collected by H.M.S. 'Challenger' during the years 1873-76. Report on the Scientific Results of the Voyage of H.M.S. 'Challenger' 1873-76 (Zool.) (5) 15: i-iv, 1-756, pls 1-50.